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EUROPEAN CORN BORER



a, Egg mass on underside of leaf; b, larvae in stalk and ear of corn; c, pupa in stalk; d, female moth; e, male moth; f, borings from burrow of larva. (Egg mass about 3 times natural size, other stages about $1\frac{1}{4}$ times natural size.)

(See other side for life history and control.)

Picture Sheet No. 14

EUROPEAN CORN BORER

(*Pyrausta nubilalis* (Hbn.))

Life History

Although the European corn borer attacks many cultivated crops and weeds, it is discussed here mainly as an enemy of corn, its favorite host plant. The eggs are laid overlapping one another like fish scales, in small, flat masses of 15 to 20 or more on the undersides of the corn leaves, and hatch in 4 to 9 days. The tiny borers, or larvae, immediately crawl to protected places on the plants, where they feed on the tissues of the immature leaves and tassels, and eventually bore into and up and down inside the stalks and into the ears. They become full-grown in about a month and, after providing an exit for the adult moth, change to pupae inside the burrows, either at once or after an inactive period of varying length. In 10 to 14 days the adult moths emerge from the pupal cells and lay an average of about 400 eggs on corn or other plants that they may find in an attractive stage of growth. The moths live from 10 to 24 days. They are active fliers during the evening or night and may migrate several miles. These insects pass the winter in the borer stage inside infested stems of corn or other plants, and here they change to moths late in the spring or early in the summer. There are one to several generations a year, depending on the length of the growing season in different latitudes.

Control

- A. Destroy overwintering borers by disposal of infested cornstalks.
 - 1. By feeding to livestock direct or as silage or in finely cut or shredded form.
 - 2. By plowing under cleanly in the fall or in early spring before the moths emerge, using attachments such as trash shields, wires, or chains to insure burial of all stalks.
 - 3. By burning infested plants completely where other methods of disposal cannot be used.
- B. Plant as late as practicable, but only within the normal planting period adapted to the locality. Moths of the first brood tend to lay their eggs on the earliest-planted corn.
- C. Plant resistant or tolerant kinds of hybrid corn.
 - 1. No immune strains are available, but hybrids differ in their resistance and tolerance.
 - 2. Select types that will mature when planted moderately late.
 - 3. Consult your county agent or your State experiment station on the best hybrids to plant in your locality.
- D. Modify cropping practices.
 - 1. Avoid sowing fall wheat or other small grain in standing corn or corn stubble. The corn stalks should be plowed under cleanly or cut at ground level and removed before seeding small grain.
 - 2. Dispose of all early sweet corn stalks in fields and gardens immediately after harvesting the ears, by feeding, ensiling, or plowing them under. Cobs and other remnants from the cannery should be disposed of in the same manner.
- E. Use insecticides where practical.
 - 1. Use of insecticides is at present practical only on early market or garden sweet corn.
 - 2. Consult your county agent or State experiment station for current recommendations.
- F. Apply as many of the operations suggested above as may be practicable under local conditions. Community application of these methods is necessary for most effective control.